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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/051,846	01/17/2002	David Myatt Parker	C70334D1	3355

7590

07/06/2005

GLAXOSMITHKLINE  
Corporate Intellectual Property - UW2220  
P.O. Box 1539  
King of Prussia, PA 19406-0939

EXAMINER
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GRAFFEO, MICHELLE

ART UNIT	PAPER NUMBER
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1614

DATE MAILED: 07/06/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

<b>Office Action Summary</b>	Application No. 10/051,846	Applicant(s) PARKER, DAVID MYATT	
	Examiner Michelle Graffeo	Art Unit 1614	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**  
**Period for Reply**

**A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.**

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 14 February 2005.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,3-13,22 and 27 is/are pending in the application.  
     4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,3-13,22 and 27 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
     Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
     Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
     a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                                   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

*S.O.S.*

## **DETAILED ACTION**

### ***Summary of Action***

Claims 1, 3-13, 22 and 27 are rejected under 35 U.S.C. 103(a). Any rejection not specifically recited in this office action has been withdrawn. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

### ***Status of Application***

Claims 1, 3-4, 13, 22 and 27 have been amended pursuant to the amendment and RCE filed February 14, 2005. Claims 2, 14-21 and 23-26 have been cancelled. Claims 1, 3-13, 22 and 27 are pending and examined.

### ***Continued Examination Under 37 CFR 1.114***

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on February 14, 2005 has been entered.

***Claim Rejections - 35 USC § 103***

Claims 1, 3-13, 22 and 27 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,597,595 to DeWille et al. as previously applied, in view of US Patent No. 4,737,375 to Nakel et al.

DeWille et al. teach a composition containing a calcium compound, specifically calcium glycerophosphate, and an acidulant, specifically a mixture of citric and lactic acid (see Col 43 Example 7).

Nakel et al. teach beverages and beverage concentrates which are nutritionally supplemented with calcium, for example calcium carbonate (see Embodiment 2 Col 11). The beverages and concentrates also include edible acids such as citric, malic and phosphoric acid (see Abstract). Nakel et al. also teach that there "are two important factors with regard to the beverages and beverage concentrates of the present invention. One is the weight ratio of the total acids to calcium. For the purposes of the present invention, this weight ratio can range from 4 to 7." (see col 5 lines 20-25).

In their examples, Nakel et al. do not show a composition wherein the calcium is present in a value of about 0.5 mol per mol of acid.

Nakel et al. teach the optimization/modification of acid to calcium ratios such that the weight ratio of acids to calcium is from 4 to 7. By applying the teachings of Nakel et al. to DeWille et al. one skilled in the art would arrive at a composition with the claimed calcium/acid ratio as measured in moles. To demonstrate by way of example, if the amount of acid was doubled in DeWille et al. so that there was about a 4:1 ratio of acid

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to calcium (which is double (X2) of what Example 7 teaches in DeWille et al.) the following calcium to acid ratio would have resulted in:

Lactic Acid =  $60\% \times 181\text{g} = 108\text{g}$   
 $108\text{g} \times 2 = 216\text{g}$   
 $216\text{g}/90\text{MW} = 2.4 \text{ mol}$   
Citric Acid =  $130\text{g}$   
 $130\text{g} \times 2 = 260\text{g}$   
 $260\text{g}/192\text{MW} = 1.4 \text{ mol}$   
Ascorbic Acid =  $10.5\text{g}$   
 $10.5\text{g} \times 2 = 21\text{g}$   
 $21\text{g}/176\text{MW} = .12 \text{ mol}$   
Total mol of Acid =  $2.4 + 1.4 + .12 = 3.9$   
Total mol of Calcium =  $1.39$   
Ratio of Calcium to Acid =  $1.39$  to  $3.9$  or  $.356$

One of skill in the art would be motivated to combine DeWille et al. with Nakel et al. and as combined would make obvious the invention as claimed above. Both are directed to palatable and marketable liquid beverages and beverage concentrates having calcium as a nutritional supplement and additional acids such as lactic or citric acid. Thus, the claimed invention of the composition was within the ordinary skill in the art to make and use at the time it was made and was as a whole, *prima facie* obvious.

### ***Response to Amendment***

Applicant's arguments, see RCE, filed February 14, 2005, with respect to the rejection(s) of claim(s) 1, 3-13, 22 and 27 under 35 U.S.C. 103(a) have been fully considered and are moot in light of the amendments to the claims.

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### **Conclusion**

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Examiner Graffeo whose telephone number is 571-272-8505. The examiner can normally be reached on 9am to 5:30pm Monday to Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Christopher Low can be reached on 571-272-0951. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

5 Jul 2005

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CHRISTOPHER S. F. LOW  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 1600